

Features

- 1.0A Average rectified forward current
- Low forward voltage
- Low leakage current



SOD-123

Applications

- Switching circuit
- Middle current rectification



Circuit

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	V_{RM}	40	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current ⁽¹⁾	I_O	1.0	A
Forward peak surge current ⁽²⁾	I_{FSM}	7	A
Peak forward current ⁽³⁾	I_{PK}	25	A
Junction temperature	T_J	125	°C
Operating temperature	T_{opr}	-55 ~ 125	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

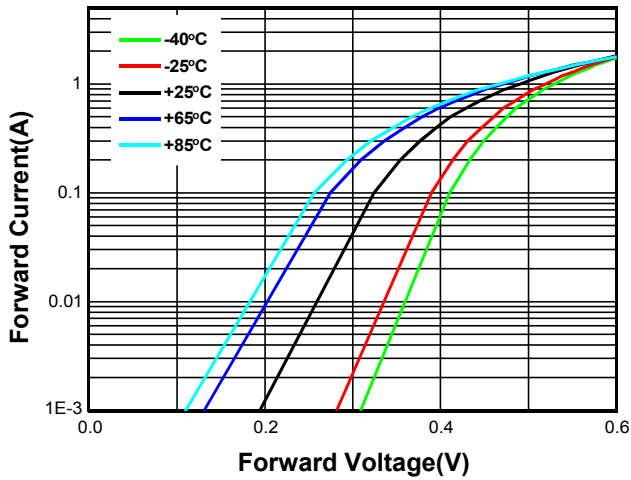
Electronics characteristics ($T_A=25^{\circ}C$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=1.0A$	-	-	0.57	V
Reverse current	I_R	$V_R=40V$	-	-	100	uA
Junction capacitance	C_J	$V_R=4V, F=1MHz$	-	105	-	pF
Thermal resistance	$R_{\theta JL}$	Junction to lead	-	-	120	K/W

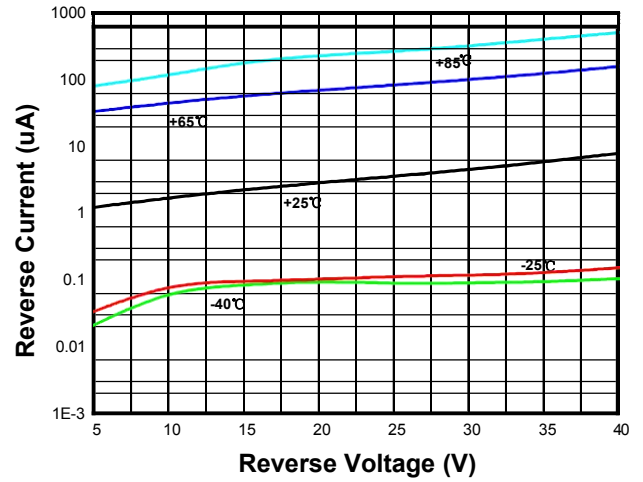
Note 1: Duty cycle=0.5, f=20kHz, square wave

Note 2: Pulse Width=8.3ms, Single sine Pulse

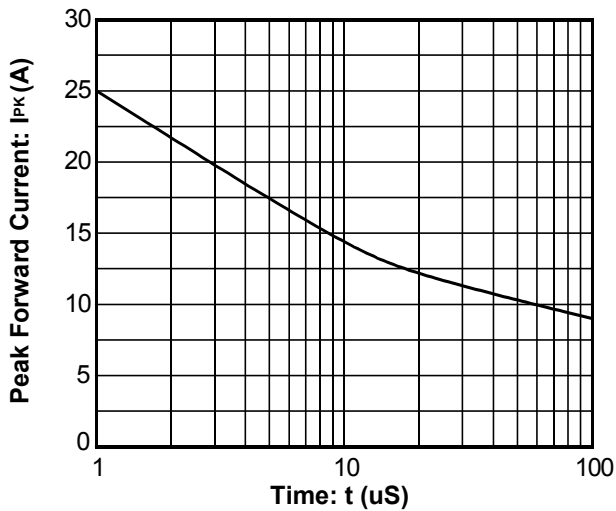
Note 3: Pulse Width = 1us.single Pulse



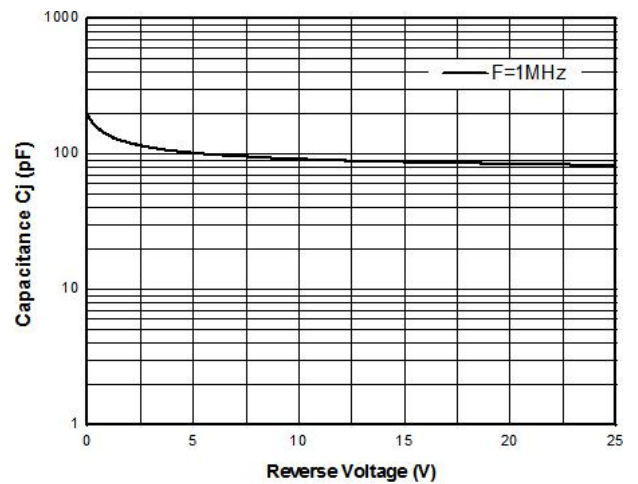
Forward voltage vs. Forward current



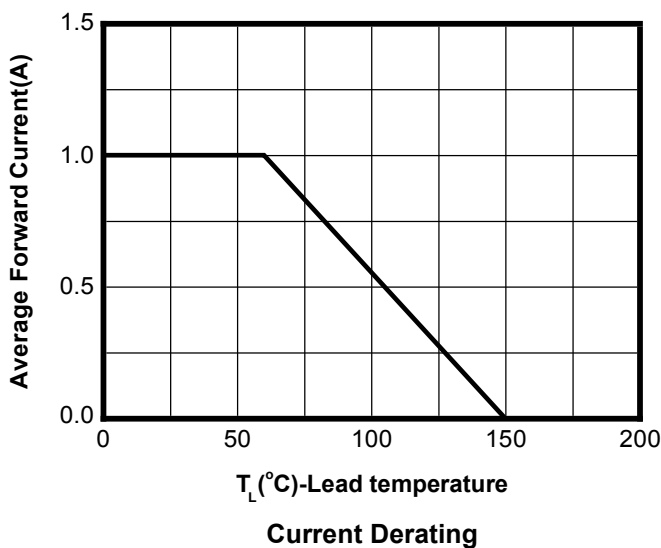
Reverse current vs. Reverse voltage



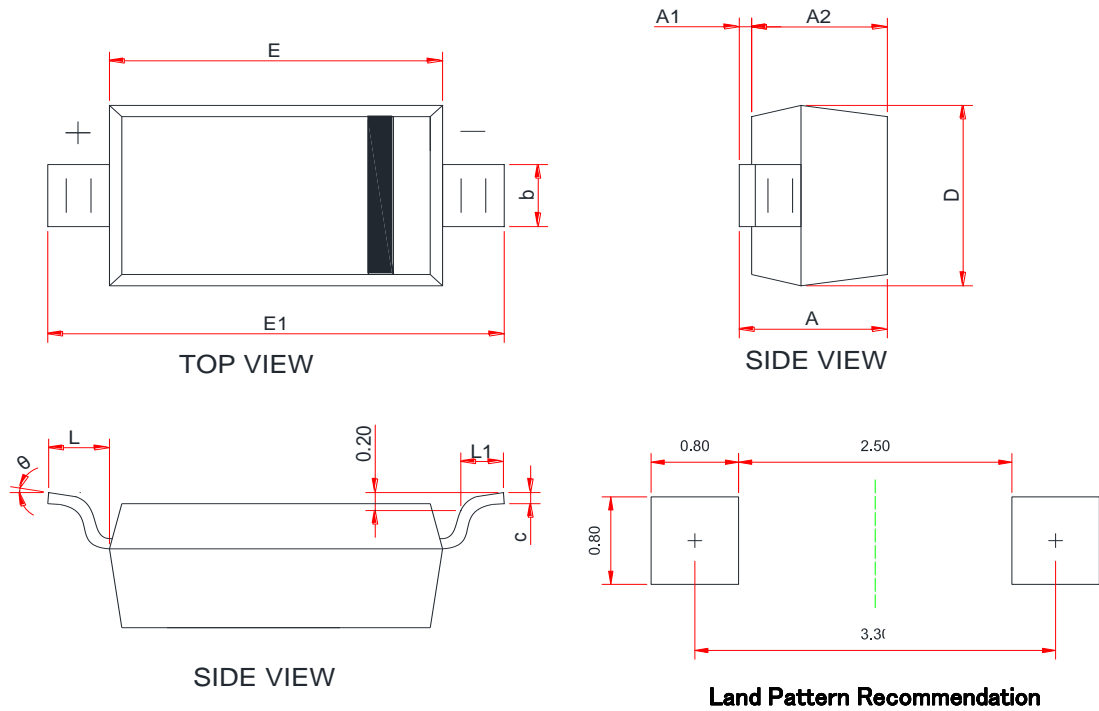
Peak pulse forward current characteristics



Junction capacitance vs. Reverse voltage



Current Derating

PACKAGE OUTLINE DIMENSIONS SOD-123


Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.91	-	1.25
A1	0.00	-	0.10
A2	0.91	-	1.15
b	0.45	-	0.70
L	0.50 Ref.		
L1	0.20	-	0.45
c	0.08	-	0.15
D	1.50	1.60	1.70
E	2.54	2.70	2.80
E1	3.50	3.70	3.85
θ	0 °	-	8 °

CCS Semiconductor and are trademarks of Semiconductor Components Industries. CCS Semiconductor reserves the right to make changes without further notice to any products herein. CCS Semiconductor makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CCS Semiconductor assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. CCS Semiconductor does not convey any license under its patent rights nor the rights of others.